1994 Forest Health Highlights

Maine

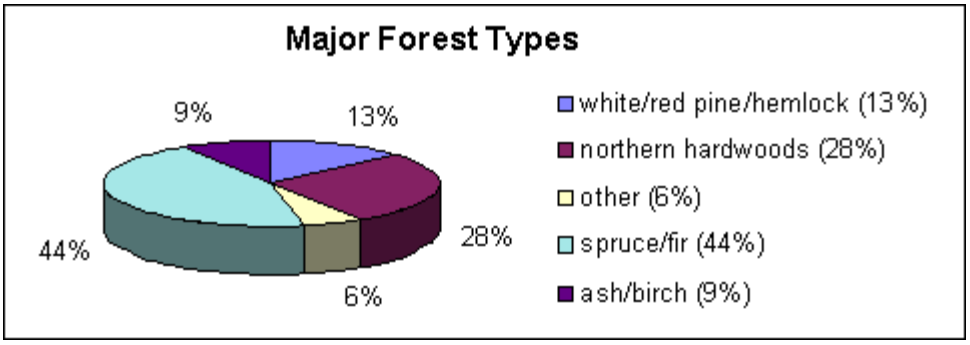
The Resource

Maine's forests provide much of the raw materials to fuel it's mills and serve as the backdrop for the recreation industry. These forest-based industries employ more than 12% of Maine's workforce and generate over 11% of the state's payroll. The overall annual contribution of the forest resource to Maine's economy exceeds $7.4 billion. The forests of the state also provide watershed, environmental, wildlife, and recreational benefits. Forested parks and individual shade trees provide similar amenities in urban and suburban settings.

- 89% of the state is forested (17,748,000 acres)

Out of the forested area:

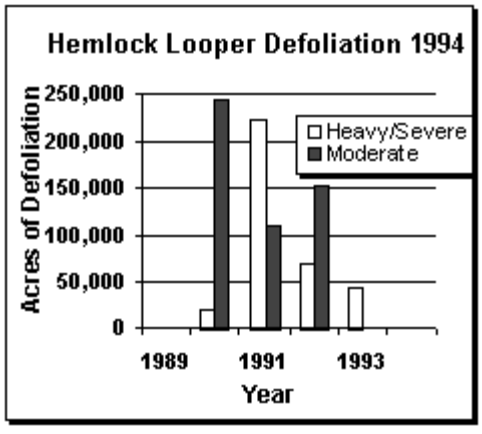
- 96.9% timberland
- 3.1% non commercial or reserved forestland



Special Issues

The **spruce budworm epidemic** of the 1970s-80s killed 20-25 million cords of spruce-fir, resulting in a 31% decline in spruce-fir inventories between 1980 and 1990. A subsequent spruce beetle infestation caused further loss of surviving spruce. While the special forest survey conducted in 1990 indicate that spruce/fir seedling and sapling inventories were starting to recover, the more definitive results of the current Forest Inventory and Analysis forest resurvey are expected by spring 1996. Current surveys indicate budworm populations in Maine remain at a very low level.

Individual stands of hemlock throughout the state have been heavily degraded by recent **hemlock looper** infestations. Analysis of worse-hit areas show 51% of the hemlocks on more than 28,000 acres have been killed outright; another 18% had tree tops killed. These figures do not account for impacts on scattered individuals or small patches of trees. Losses, even when confined to just these hardest hit areas, exceed 430,000 cords. An additional consideration is that dead trees along streamsides and shorelines impact many camp and homeowners, fish and wildlife habitat, and general aesthetics. Although looper populations were low in 1994, surveys of overwintering populations indicate a potential resurgence during 1995.



Gypsy moth populations continue to subside as predicted. Significant populations are currently confined to York county. We anticipate innocuous levels of this insect for the next few years.

In Maine, **browntail moth** populations are intensifying as the known range is expanding. In the late 1980s, endemic relic populations were know only on three islands in Casco Bay. By 1994, 23 islands had moderate to heavy populations and noticeable damage. Current 1995 surveys have detected significant populations now established on the mainland. No tree mortality has been noted. However, the rash caused by the larval hairs has become an increasing public health concern. The Maine Forest Service is working with arborists and nurseries, municipalities, and the medical community to address the situation. This is a significant and growing urban and community forestry problem.

Brown ash, although a relatively minor component of the forest, is in a state of severe decline throughout Maine. More than 65% of the trees exhibit significant dieback; 38% of the trees are dying or dead. Current ongoing research suggests that this syndrome is predisposed or driven by abiotic stress.

Other Issues

The **harsh weather conditions** of the 1993-94 winter caused appreciable damage to ornamentals, nursery stock, and roadside conifers. Although few trees were killed outright, many were severely weakened by the loss of buds and current year's foliage. In a possibly related syndrome, mature

hardwoods on exposed sites in northwestern Maine are exhibiting elevated incidence of dieback.

There is major concern over the introduction of **foreign insects and diseases**. Our forests are still adjusting to well established past introductions (e.g.. gypsy moth; European larch canker; dutch elm disease; white pine blister rust; chestnut blight). Other exotic pests such as the Asian gypsy moth, butternut canker, and hemlock woolly adelgid, pose a new potential threat to the resource.

Against the backdrop of these traditional forest health issues we are now coming to grips with

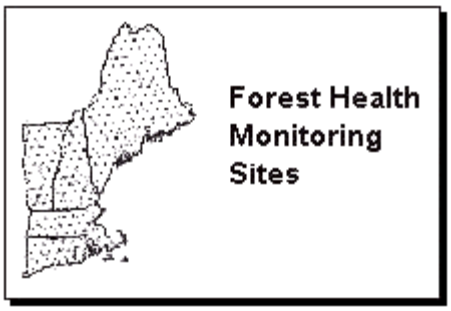
emerging concerns for neotropical bird breeding requirements, old growth forests, forest practices regulations, wetland and water quality, biodiversity, threatened and endangered species habitat, public access versus private landowner rights, and resource fragmentation.

Regional Surveys

Interest in regional forest condition prompted the implementation of the National Forest Health Monitoring Program and the North American Maple Project.

FOREST HEALTH MONITORING PROGRAM

The objective is to assess trend in tree condition and forest stressors. All of the New England States have been involved since the program was initiated in 1990. Results indicate that there has been minimal change in crown condition in the last 5 years. In 1994, 99 percent of trees greater than 5 inches diameter had normal crown fullness. About 96 percent of the trees had little or no crown dieback, and 78 percent showed no measurable signs of damage. The most common damage was decay indicators, which were more evident on hardwoods than softwoods. Additional surveys indicate there are concerns for individual species such as ash, butternut and hemlock due to various damage agents.



NORTH AMERICAN MAPLE PROJECT

This cooperative project with Canada was initiated in 1988 to look at change in sugar maple tree condition.

There are several states in the Northeast involved including New York, New Hampshire, Vermont, Maine, and Massachusetts. Overall, sugar maple located within the sample sites are in good condition. Periodically, insect defoliation has affected crown condition in some areas. There was little difference found between sugarbush and non sugarbush stands.

For More Information

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September 1995